This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

1. (withdrawn) A monoclonal antibody or binding fragment thereof, which specifically binds to an antigen on the surface of a human myeloma cell, said antigen being further characterized in that

(a) it is a single polypeptide with a molecular weight of about 78 kDa to about 120 kDa as determined by SDS PAGE under reducing conditions;

(b) it is absent from human peripheral blood mononuclear cells, absent from human B cells, and absent from human B cell myelogenic leukemia cells; and

(c) it is glycosylated.

2. (withdrawn) The monoclonal antibody or fragment thereof of claim 1 which recognizes an antigen present on the surface of ovarian cancer cells, said antigen being a single glycosylated polypeptide with a molecular weight of about 76 kDa to about 213 kDa as determined by SDS PAGE under reducing conditions.

3. (withdrawn) The monoclonal antibody or fragment thereof of claim 1 wherein said antigen is absent from breast cancer cells, prostate cancer cells, and cervical cancer cells.

4. (withdrawn) The monoclonal antibody or fragment thereof of claim 1 which is produced by the hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450.

5. (withdrawn) A monoclonal antibody or fragment thereof selected from the group consisting of the monoclonal antibody produced from the hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450, which antibody binds to a cell surface glycoprotein antigen of human myeloma tumor cells; antibodies that are capable of binding to the same antigenic determinant as does the monoclonal antibody produced by said hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450; binding fragments of the hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450; and binding fragments of a monoclonal antibody capable of binding to the same antigenic determinant as does the monoclonal antibody produced by said hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450.

6. (withdrawn) The monoclonal antibody or binding fragment thereof of claim 5 wherein said cell surface glycoprotein is present on human myeloma cells, absent from human peripheral blood mononuclear cells, absent from human B cells, and absent from human B cell myelogenic leukemia cells.

7. (withdrawn) The monoclonal antibody or binding fragment thereof of claim 5 wherein said cell surface glycoprotein recognized by said monoclonal antibody or binding fragment thereof is present on human ovarian cancer cells, said cell surface glycoprotein being a single glycosylated polypeptide with a molecular weight of about 76 kDa to about 213 kDa as determined by SDS PAGE under reducing conditions.

8. (withdrawn) The monoclonal antibody or binding fragment thereof of claim 5 wherein said cell surface glycoprotein of multiple myeloma cells is a single

polypeptide with a molecular weight of about 78 kDa to about 120 kDa as determined by SDS PAGE under reducing conditions.

9. (withdrawn) The monoclonal antibody or binding fragment thereof of claim 1 or 5 wherein said binding fragment comprises $F(ab')_2$, Fab', Fv, Fd', or Fd.

10. (withdrawn) An anti-idiotypic monoclonal antibody mirroring the binding site the antibody of claim 5.

11. (withdrawn) A cell line produced by a hybridoma technique which produces a monoclonal antibody which specifically binds to a surface antigen of human myeloma cells, said antigen being further characterized in that

(a) it is a single polypeptide with a molecular weight of about 78 kDa to about 120 kDa as determined by SDS PAGE under reducing conditions;

(b) it is absent from human peripheral blood mononuclear cells, absent from human B cells, and absent from human B cell myelogenic leukemia cells; and

(c) it is glycosylated.

12. (withdrawn) The cell line of claim 11 which produces a monoclonal antibody which specifically binds to a surface antigen of human ovarian cancer cells.

13. (cancelled)

14. (withdrawn) An isolated surface antigen of human myeloma cells, said antigen being further characterized in that

(a) it is a single polypeptide with a molecular weight of about 78 kDa to about 120 kDa as determined by SDS PAGE under reducing conditions;

(b) it is absent from human peripheral blood mononuclear cells, absent from human B cells, and absent from human B cell myelogenic leukemia cells; and

(c) it is glycosylated.

15. (withdrawn) The isolated surface antigen of claim 14 further characterized in that it binds to a monoclonal antibody produced by the hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450.

16. (withdrawn) An isolated surface antigen of human ovarian cancer cells, said antigen being further characterized in that

(a) it is a single polypeptide with a molecular weight of about 76 kDa to about 213 kDa as determined by SDS PAGE under reducing conditions;

(b) it is absent from human peripheral blood mononuclear cells, absent from human B cells, and absent from human B cell myelogenic leukemia cells; and

(c) it is glycosylated.

17. (withdrawn) The isolated surface antigen of claim 16 further characterized in that it binds to a monoclonal antibody produced by the hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450.

18. (currently amended) A method of killing or inhibiting the growth of~~, or killing,~~ myeloma tumor cells or ovarian cancer tumor cells~~,~~ comprising administering to an individual in need thereof a composition comprising a monoclonal antibody, deposited under

ATCC designation number PTA-450, or antigen binding fragment thereof, under conditions sufficient for binding of the monoclonal antibody, or antigen binding fragment thereof, to said tumor cells, thereby inducing growth inhibition or killing of said tumor cells ~~by the individual's immune cells~~.

19. (currently amended) A method of killing or inhibiting the growth of~~, or killing,~~ myeloma tumor cells or ovarian cancer tumor cells~~,~~ comprising administering to an individual in need thereof a composition comprising a monoclonal antibody, deposited under ATCC designation number PTA-450, or antigen binding fragment thereof, wherein said monoclonal antibody, or antigen binding fragment thereof, is conjugated with a cytotoxic moiety, under conditions sufficient for binding of said monoclonal antibody, or antigen binding fragment thereof, to said tumor cells, thereby inducing killing or growth inhibition ~~or killing~~ of said tumor cells.

20. (previously presented) The method according to claim 19 wherein said cytotoxic moiety is a chemotherapeutic agent, a photo-activated toxin, or a radioactive agent.

21. (withdrawn) A method of removing myeloma cells from a isolated cellular sample comprising the steps of exposing said cellular sample to a solid matrix on which said monoclonal antibody or binding fragment thereof of claim 1 or claim 5 is bound under conditions wherein said myeloma cells adhere to said monoclonal antibody or binding fragment thereof, and isolating a cellular fraction of said cellular sample which does not bind to said matrix.

22. (withdrawn) The method of claim 21 wherein said cellular sample comprises bone marrow cells.

23. (withdrawn) The method of claim 22 wherein said bone marrow cells from which said myeloma cells are removed are used for transplant.

24. (withdrawn) The method of claim 23 wherein said transplant is an autologous bone marrow transplant.

25. (currently amended) A method for killing or inhibiting the growth of ~~or killing~~ myeloma cells in a isolated cellular sample comprising exposing said cellular sample to a monoclonal antibody, deposited under ATCC designation number PTA-450, or antigen binding fragment thereof, conjugated with a cytotoxic moiety under conditions sufficient for the binding of said monoclonal antibody or antigen binding fragment thereof to said myeloma cells causing killing or growth inhibition ~~inhibiting or killing~~ of said myeloma cells.

26. (original) The method of claim 25 wherein said cytotoxic moiety is a chemotherapeutic agent, a photo-activated toxin or a radioactive agent.

27. (original) The method of claim 25 wherein said cellular sample comprises bone marrow cells.

28. (original) The method of claim 27 wherein said bone marrow cells from which said myeloma cells are removed are used for transplant.

29. (original) The method of claim 28 wherein said transplant is an autologous bone marrow transplant.

30. (withdrawn) The monoclonal antibody, or binding fragment thereof, of claim 1 or claim 5 bound to a solid support.

31. (withdrawn) A method for localizing myeloma or ovarian cancer cells in an individual, comprising

i) administering to an individual a composition comprising a monoclonal antibody, or binding fragment thereof, of claim 1 or claim 5, wherein said monoclonal antibody, or binding fragment thereof, is detectably labeled, under conditions sufficient for binding of said monoclonal antibody, or binding fragment thereof, to said cells within the individual, and

ii) determining the location of the monoclonal antibody, or binding fragment thereof, within said individual.

32. (withdrawn) The method according to claim 31, wherein the monoclonal antibody, or binding fragment thereof, is labeled with a fluorophone, a chromophore, a radionuclide, or an enzyme.

33. (cancelled)

34. (withdrawn) A method for monitoring the effectiveness of therapy for ovarian cancer comprising measuring changes in the level of the antigen of claim 16 in a

bodily fluid sample from a patient undergoing therapy, and correlating the change in level with the effectiveness of said therapy.

35. (withdrawn) A pharmaceutical composition comprising a monoclonal antibody or binding fragment thereof which specifically binds to an antigen on the surface of a human myeloma cell, said antigen being further characterized in that

(a) it is a single polypeptide with a molecular weight of about 78 kDa to about 120 kDa as determined by SDS PAGE under reducing conditions;

(b) it is absent from human peripheral blood mononuclear cells, absent from human B cells, and absent from human B cell myelogenic leukemia cells; and

(c) it is glycosylated;

and a pharmaceutically-acceptable carrier or diluent.

36. (withdrawn) The pharmaceutical composition of claim 35 wherein said monoclonal antibody or said binding fragment thereof recognizes an antigen found on ovarian cancer cells, but not found on breast cancer cells, prostate cancer cells from a cell line, nor on cervical cancer cells from a cell line.

37. (withdrawn) A pharmaceutical composition comprising a monoclonal antibody or binding fragment thereof selected from the group consisting of the monoclonal antibody produced from the hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450, which antibody binds to a cell surface glycoprotein antigen of human myeloma tumor cells or human ovarian cancer cells; antibodies that are capable of binding to the same antigenic determinant as does the monoclonal antibody produced by said hybridoma cell line deposited at the American Type

Culture Collection having accession No. PTA-450; binding fragments of the hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450; and binding fragments of a monoclonal antibody capable of binding to the same antigenic determinant as does the monoclonal antibody produced by said hybridoma cell line deposited at the American Type Culture Collection having accession No. PTA-450; and a pharmaceutically-acceptable carrier or diluent.

38. - 50. (cancelled)

51. (withdrawn) A method of monitoring the effectiveness of therapy for ovarian cancer, comprising:

(a) periodically measuring in a body fluid sample taken from a patient undergoing the therapy changes in the level of antigen associated with ovarian cancer, said antigen having the following characteristics:

(i) it is a single polypeptide having a molecular weight of about 76 kDa to about 213 kDa as determined by SDS polyacrylamide gel electrophoresis (SDS-PAGE) under reducing conditions;

(ii) it is absent from the group consisting of human peripheral blood mononuclear cells, human B cells, human B cell myelogenic leukemia cells, breast cancer cells, prostate cancer cells and cervical cancer cells; and

(iii) it is glycosylated; and

(b) correlating a change in level of the antigen with the effectiveness of the therapy, wherein a lower level of antigen determined at a later time point relative to the level of antigen determined at an earlier time point during the course of therapy indicates effectiveness of the therapy for ovarian cancer.

52. (withdrawn) The method according to claim 51, wherein the levels of antigen of step (a) are measured with a detectably labeled monoclonal antibody having ATCC Accession No. PTA-450, or binding fragment thereof.

53. (withdrawn) The method according to claim 52, wherein the antibody binding fragment is selected from the group consisting of $F(ab')_2$, Fab', Fv, Fd' and Fd antibody fragments.

54. (withdrawn) The method according to claim 51, further wherein no change in the level of antigen, or an increase in the level of antigen, indicates ineffectiveness of therapy or continued tumor growth.

55. (withdrawn) The method according to claim 51, wherein ovarian cancer therapy is selected from surgery, chemotherapy, and radiation therapy.

56. (withdrawn) The method according to claim 51, wherein the body fluid sample is a blood sample.

57. - 64. (cancelled)

65. (currently amended) A method of killing or inhibiting the growth of~~, or killing,~~ myeloma tumor cells or ovarian cancer tumor cells~~,~~ comprising

contacting said tumor cells with a composition comprising ~~the~~ a monoclonal antibody, deposited under ATCC designation number PTA-450, or antigen

binding fragment thereof, under conditions sufficient for ~~the~~ binding of said monoclonal antibody, or antigen binding fragment thereof, to said tumor cells, thereby killing or inhibition the growth ~~inducing growth inhibition or killing~~ of said tumor cells.

66. (previously presented)The method of claim 65, wherein said monoclonal antibody, or antigen binding fragment thereof, is conjugated with a cytotoxic moiety.

67. (previously presented)The method of claim 66 wherein said cytotoxic moiety is a chemotherapeutic agent, a photo-activated toxin, or a radioactive agent.

68. (previously presented)The method of claim 18, wherein said monoclonal antibody, or antigen binding fragment thereof, is administered together with a physiologically acceptable carrier or diluent.

69. (previously presented)The method of claim 65, wherein said antigen binding fragment is selected from the group consisting of F(ab')2, Fab', Fv, Fd' and Fd.

70-72. (cancelled)

73. (previously presented)The method of claim 19, wherein said monoclonal antibody, or binding fragment thereof, is administered together with a physiologically acceptable carrier or diluent.

74. (previously presented)The method of claim 19, wherein said binding fragment is selected from the group consisting of $F(ab')_2$, Fab', Fv, Fd' and Fd.

75. (currently amended) A method of killing or inhibiting the growth of~~, or killing,~~ myeloma tumor cells or ovarian cancer tumor cells~~,~~ comprising

contacting said tumor cells with a composition comprising a monoclonal antibody, or antigen binding fragment thereof, under conditions sufficient for the binding of said monoclonal antibody, or binding fragment thereof, to said tumor cells, thereby inducing killing or growth inhibition ~~or killing~~ of said tumor cells,

wherein said monoclonal antibody is a monoclonal antibody deposited under ATCC designation number PTA-450, wherein said monoclonal antibody, or antigen binding fragment thereof, is immunoreactive with cell surface membranes of ~~both~~ human myeloma cells or human ovarian cancer cells.

76. (previously presented)The method of claim 75, wherein said monoclonal antibody, or antigen binding fragment thereof, is not immunoreactive with cell surface membranes of human peripheral blood mononuclear cells, human B cells, neuroblastoma cells, human B cell myelogenic leukemia cells, breast cancer cells, prostate cancer cells, or cervical cancer cells.

77. (previously presented)The method of claim 75, wherein said monoclonal antibody, or antigen binding fragment thereof, is conjugated with a cytotoxic moiety.

78. (previously presented)The method of claim 77 wherein said cytotoxic moiety is a chemotherapeutic agent, a photo-activated toxin, or a radioactive agent.

79. (cancelled)

80. (previously presented)The method of claim 75, wherein said antigen binding fragment is selected from the group consisting of $F(ab')_2$, Fab', Fv, Fd' and Fd.

81. (previously presented) The method of claim 18, wherein said monoclonal antibody is immunoreactive with cell surface membranes of both human myeloma cells and ovarian cancer cells and is not immunoreactive with cell surface membranes of human peripheral blood mononuclear cells, human B cells, neuroblastoma cells, human B cell myelogenic leukemia cells, breast cancer cells, prostate cancer cells, or cervical cancer cells.

82. (previously presented) The method of claim 19, wherein said monoclonal antibody is immunoreactive with cell surface membranes of both human myeloma cells and ovarian cancer cells and is not immunoreactive with cell surface membranes of human peripheral blood mononuclear cells, human B cells, neuroblastoma cells, human B cell myelogenic leukemia cells, breast cancer cells, prostate cancer cells, or cervical cancer cells.

83. (previously presented) The method of claim 25, wherein said monoclonal antibody is immunoreactive with cell surface membranes of both human myeloma cells and ovarian cancer cells and is not immunoreactive with cell surface

membranes of human peripheral blood mononuclear cells, human B cells, neuroblastoma cells, human B cell myelogenic leukemia cells, breast cancer cells, prostate cancer cells, or cervical cancer cells.

84. (previously presented)The method of claim 18, wherein said antigen binding fragment is selected from the group consisting of $F(ab')_2$, Fab', Fv, Fd' and Fd.

85. (previously presented)The method of claim 25, wherein said antigen binding fragment is selected from the group consisting of $F(ab')_2$, Fab', Fv, Fd' and Fd.